



	Alternate 1	Alternate 2	Alternate 3	Alternate 4	Alternate 5	Alternate 6
Parcels Intersected (impact relative to lowest impact; 1.00 = lowest impact alternative)	121 (3.67)	33 (1.00)	50 (1.52)	34 (1.03)	107 (3.24)	59 (1.79)
Dwellings Intersected (250' Total ROW)	77 (25.67)	3 (1.00)	15 (5.00)	10 (3.33)	68 (22.67)	15 (5.00)
Commercial, Public, Non-Profit Impacts	-	-	ROW within 25' of church	ROW within 25' of church	-	-
Noise Receptor Est. Dwellings w/in 500' of ROW edge. 1, 4, & 5 higher than listed due to multifamily buildings counted as single dwellings in GIS	234 (1.80)	130 (1.00)	143 (1.10)	189 (1.45)	343 (2.64)	219 (1.68)
EJ Communities (all routes pass through minority Census Blocks) 1 = baseline 2 = potential impact (noise) 3 = direct impact (displacement)	3: Direct impacts to dense EJ housing area and noise impacts to EJ housing area	1: Route passes through Census Block with predominant minority population	1: Route passes through Census Block with predominant minority population	2: small potential noise impact to multi-family EJ area near eastern terminus; eliminated if using same terminus as Alt 2/3/5	3: Direct impacts to dense EJ housing; noise impacts to that area and to multifamily area	1: Route passes through Census Block with predominant minority population
Historic Resources* All routes pass through regional historic resource areas described in the notes below. All unique impacts identified to the right are currently "Not Evaluated" by DHR as of 2/2017, with the exception of 020-783, which is ineligible.	Right of way covers portion of southern boundary of 020-0783: "Up Away", surveyed January 2016 and deemed "Not Eligible"	Major, direct impact to 020-0205, Pearce House; Right of way covers portion of southern boundary of 020-0783: "Up Away", surveyed January 2016 and deemed "Not Eligible"	Right of way covers portion of southern boundary of 020-0783: "Up Away", surveyed January 2016 and deemed "Not Eligible"	Major, direct impact to 020-0783: "Up Away", surveyed January 2016 and deemed "Not Eligible" Potential minor direct impact to 44CF0533: Native American Archaeological Site; could likely be avoided with less than 100' adjustment. Potential direct impacts to: 44CF0537: Walthall Gun Emplacements 44CF0578: Bermuda Hundred Campaign	Right of way covers portion of southern boundary of 020-0783: "Up Away", surveyed January 2016 and deemed "Not Eligible"	Right of way covers portion of southern boundary of 020-0783: "Up Away", surveyed January 2016 and deemed "Not Eligible"
Schools		Major impact to Harrowgate Elementary School (HES); relocation required.	Moderate impact to HES: four buildings, recreation areas, and noise. Impact to Carver Middle School (CMS): football field, track, baseball fields, tennis courts, noise.	Moderate impact to HES: four buildings, recreation areas, and noise. Impact to CMS: access and noise.		
Public Parks and Recreation Areas			Major direct impact to Harrowgate Meadows Park; additional noise impacts.	Minor direct impact to Harrowgate Meadows Park; potential noise impact.		
Public waterfowl/ wildlife refuges	None in project area.					
Threatened and Endangered Species; Trout; Anadromous Fish; Known Shellfish Grounds; Bald Eagles	USFWS IPAC search revealed no critical habitat and no FWS National Wildlife Refuges/Fish Hatcheries in the project area (750' buffer beyond ROW limits). ESA Species List identified Northern Long-eared Bat for consideration, but no critical habitat was identified. Center for Conservation Biology search revealed no bald eagle nests or roosts in the immediate project vicinity; some nests were located east of the site across I-95. DGIF VaFWIS 2-mile radius search revealed 22 species with Status (11 of 22), Tier I (10 of 22), or Tier II (10 of 22). The VaFWIS search revealed no Threatened and Endangered Waters, Managed Trout Streams, nor Bald Eagle Concentration Areas and Roosts. Bald Eagle Nests were identified approximately 2 miles east of the project area.					
Prime Farmland and Farmland of Statewide Importance Acres	12.5 (3.57)	13.6 (3.89)	8.0 (2.29)	3.5 (1.00)	11.0 (3.14)	10.8 (3.09)
Floodplains	All route options traverse floodplains located along Timsbury Creek.					
NWI Wetlands	2.97 (3.50)	3.75 (4.41)	3.91 (4.60)	4.27 (5.02)	0.85 (1.00)	3.56 (4.18)
Wetland Acres	0.21 (1.14)	0.18 (1.00)	0.18 (1.01)	0.78 (4.31)	0.66 (3.65)	0.29 (1.62)
Riverine Acres	0.08	0.08	0.08	0.00	0.00	0.07
Pond Acres (not ranked)						
Streams Linear Feet	785	930	768	1798	1220	767
Based on USGS NHD 1:24k	(1.02)	(1.21)	(1.00)	(2.34)	(1.59)	(1.00)
HUCs	All routes fall in two HUCs: 020802070904 to the west and 0208071002 to the east. Both are part of the Appomattox River Watershed.					
Contamination & Toxics	Initial EDR radius report and EPA NEPAassist database tool showed no listings of concern in the project area.					
Air Quality	Project is in 8-hour Ozone (1997) Maintenance Area.					
Natural Heritage Resources	TBD	TBD	TBD	TBD	TBD	TBD
Forest Land/Forestral District	TBD	TBD	TBD	TBD	TBD	TBD
Open Space Easement	TBD	TBD	TBD	TBD	TBD	TBD

*Regional Historic Resources:
020-5351: Richmond and Petersburg Electric Railway; Potentially Eligible
020-5317: Port Walthall Junction Battlefield, Indian Hills Road; Eligible
020-5318: Arrowfield Church, Fort Clifton, Swift Creek Battlefield; Potentially Eligible
020-5320: Drewry's Bluff (2nd) Battlefield, Fort Darling, Fort Drewry, Proctor's Creek Battlefield; Potentially Eligible
123-5025: Assault on Petersburg/Petersburg Battlefield II; Potentially eligible
Nearby Resources
127-6271: Seaboard Air Line Railroad Corridor; Potentially Eligible (west of study limits)
127-6251: Atlantic Coast Railroad Corridor between Richmond and Petersburg, Richmond and Petersburg Railroad, Atlantic Coast Line Railroad Corridor; Potentially Eligible (east of study limits)
Potentially Eligible (east of study limits)

Sources: Esri, HERE, DeLorme, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, Geobase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, MapmyIndia, © OpenStreetMap contributors, and the GIS User Community